Remarks

Claims 10-46 are pending in this application. In an Office Action dated October 6, 2004, the Examiner appears to have rejected claims 10-17, 28-43 and 45 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,536,892 to Kostreski *et al.* (Kostreski).[1] The Examiner rejected claims 20-27 under 35 U.S.C. § 103(a) as being unpatentable over Kostreski in view of U.S. Patent No. 6,510,152 to Gerszberg *et al.* (Gerszberg). The Examiner rejected claims 18, 19, 44 and 46 under 35 U.S.C. § 103(a) as being unpatentable over Kostreski in view of U.S. Patent No. 6,052,744 to Moriarity *et al.* Applicants respectfully disagree with the Examiner's rejections and request reconsideration in light of the following remarks.

Independent claim 10 provides a method of distributing high-speed information packets to at least one subscriber unit. Each information packet is associated with an information channel. Each information packet is routed through a distributed network of routing elements, with each routing element in wireless communication with at least one other routing element in the network of routing elements. Each information packet is received in a distribution center in communication with the distributed network of routing elements. Each information packet is forwarded to each subscriber unit in communication with the distribution center and requesting the information channel of which the information packet is associated.

The Examiner asserts that claim 10 is taught by Kostreski. Kostreski discloses an analog broadcast system which has been adapted to handle digital signals. (*See*, the Abstract.) The system includes a transmission system, illustrated in Figure 6, and receiver systems, illustrated in Figure 7. Because Kostreski discloses nothing more than a wireless broadcast system, there is no need for Applicants' wirelessly communicating routing elements.

As is evident from Kostreski's Figure 6 and the supporting text, various sources of baseband video programs are converted in headend (10) to digital information streams,

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[1]The Office Action states "Claims 10-17, 28-36, 38, 41 and 45 and 28-46 rejected under 35 U.S.C. § 102(b) as being anticipated by Kostreski (U.S. 5536892)." The claims listed as anticipated by Kostreski in this response are based on the actual arguments made by the Examiner. The Examiner is asked to clarify these inconsistencies in an Advisory Action, if one is prepared, in order to put this case in better condition for appeal.

which are multiplexed (12) and modulated (13, 14), with each multiplexed stream having a different RF carrier frequency. The streams are then combined (15), converted to optical (16), and sent to geographically separated transmission systems (17_1 . . . 17_N). There is no routing of packets involved because every transmitter receives the same signal to transmit and the packets are sent as modulated RF signals.

As is evident from Kostreski's Figure 7 and the supporting text, down converter 33 receives the broadcast RF signal. There is no routing involved with the down converter.

> FIG. 7 provides a high-level functional diagram of the receiving systems used in the present invention.
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> In practice, users or locations associated with the original service provider, e.g. the university that formerly offered an ITFS service on campus, will have a receiving system R'. This receiving system includes an antenna 31, a downconverter 33 and a coaxial distribution system connected to a number of terminals 100. In the dormitory example, the terminals may be located in the rooms of those students whose parents have paid for their children to subscribe to the university's service and/or the new programming services.

Kostreski, col. 14, ll. 41-52.

> The receiving antenna 31 supplies the 2.6 GHz spectrum (through appropriate filtering and/or amplifiers not shown) to a block down-converter 33. The block down-converter converts the 2.6 GHZ signal, containing all of the RF channels, back down to the video channel band of 50-450 MHZ. **The block down-converter supplies the 50-450 MHZ combined spectrum signal via a coaxial cable to one or more terminal devices 100 located at various places in the subscriber's home. Each terminal 100 includes some form of wireless signal processor 35 for processing a selected one of the 6 MHZ channels to recover the digitally multiplexed transport stream carried in that channel.** Each terminal connects to an associated television set 100'. The digital signal processor 37 processes data packets for the selected program from the multiplexed stream to produce signals to drive the TV 100'. The TV 100' presents the program to the viewer in sensorially perceptible form, in this case, as a standard audio/visual output.

Kostreski, col. 15, ll. 33-50 (emphasis added).

There is no routing whatsoever, let alone Applicant's wireless distributed routing. The down converter is nothing more than that — a device that mixes the RF signal down to another

frequency range. The output signal is still an RF signal and this signal is sent to every subscriber unit (100) connected to the down converter.

The Examiner asserts that Kostreski's headend teaches "receiving each information packet in a distribution center in communication with the distributed network of routing elements" as provided in claim 1. It does not, for Kostreski's headend does not receive information packets. Rather, Kostreski's headend generates packets and sends these packets in RF modulated streams.

The Examiner also asserts that Kostreski's down converter "is a routing element in the network." (Page 10.) It is not, for Kostreski's down converter performs no routing functions whatsoever. Kostreski's down converter is a receiver and an RF mixer. Neither of these functions is remotely related to routing.

Kostreski does not teach, or fairly suggest, Applicants' invention. Claim 10 is patentable over the cited art. Claims 11-19 depend from claim 10 and are therefore also patentable.

Independent claim 28 provides a system for providing packetized video information to a plurality of subscriber units. The system includes a **distributed routing network** with a plurality of distribution points. **Each distribution point is in radio contact with at least one other distribution point** in the plurality of distribution points. At least one of the distribution points functions as a video distribution center.

The Examiner rejected claim 28 as taught by Kostreski. As discussed above, Kostreski does not teach a distributed routing network because no wireless routing of any kind is taught by Kostreski. The only routing which is disclosed in Kostreski takes plac***within the subscriber*** units (100), where video packets are sent to a video decoder (129) and audio packets are sent to an audio decoder (131). (*See*, Figure 8 and associated text.)

Kostreski does not teach, or fairly suggest, Applicants' invention. Claim 28 is patentable over the cited art. Claims 29 and 30 depend from claim 28 and are therefore also patentable.

Dependent claim 29 further provides that at least one of the distribution points is operative to receive requests for video content from at least one subscriber unit and forward

those requests to at least one video supplier. The Examiner asserts this is taught by Kostreski at col. 19, ll. 30-50, as follows:

> When the user selects a digital broadcast program, the microprocessor 110 in the main portion of the DET accesses the listing for that channel in the channel map stored in the system memory 120. The microprocessor 110 supplies a message containing the RF channel number and the program number (PN) to the TIM controller 210 via interface 209. In response to the RF channel number, the TIM controller 210 activates the tuner 201 to tune to the identified channel. If the program is encrypted, the TIM uses the program number, the program association table in the packet identified by PID 0 and the program map to identify the packets carrying audio, video and data (if any) for the program. If authorized to receive the program as indicated via the renewable security device 211, the decryption module 207 uses a decryption key from its memory or from the renewable security device 211 to descramble the information in the payloads of the packets of the selected program. As a result, the TIM 216 passes digital signals from the RF channel through the interface to the MPEG system demultiplexer 129 in the main portion of the DET wherein at least the information for the selected program is now in unencrypted form.

The functions and elements described in this paragraph take place entirely within Kostreski's terminal (100), identified as Applicants' subscriber units. There is no disclosure in Kostreski for forwarding video content requests to a video supplier — unidentified by the Examiner.

Independent claim 31 provides a system for providing packetized video information to a plurality of subscriber units. The system includes a distributed routing network and at least one access point. The distributed routing network includes a plurality of distribution points, each distribution point in radio contact with at least one other distribution point. At least one access point in communication with the distributed routing network functions as a video distribution center.

The Examiner asserts that claim 31 is taught by Kostreski. The Examiner's argument is that Kostreski's transmitters and receivers (down converters) are a distributed routing network. No one skilled in the art would recognize Kostreski's broadcast system as a distributed routing network as no routing takes place.

Kostreski does not teach, or fairly suggest, Applicants' invention. Claim 31 is patentable over the cited art. Claims 32-35 depend from claim 31 and are therefore also patentable.

Dependent claim 34 further provides that at least one access point determines if the requested video channel is currently being accessed by another subscriber unit served by the access point and, if the requested video channel is not currently being accessed by another subscriber unit served by the access point, forwards the request to a video supplier. The Examiner provided no citation or any other basis for rejecting these provisions of claim 34.

Independent claim 36 provides a system for distributing high-speed information packets to at least one subscriber unit, each information packet associated with an information channel. The system includes a distributed network of routing elements for routing each information packet and at least one distribution center in communication with the distributed network of routing elements and with at least one subscriber unit. Each routing element is in wireless communication with at least one other routing element in the network of routing elements. Each distribution center forwards each information packet to each subscriber unit requesting the information channel associated with each information packet.

The Examiner asserts that claim 36 is disclosed by Kostreski. As discussed above, Kostreski does not teach a distributed network of routing elements in wireless communication. Moreover, Kostreski does not teach subscriber units requesting information channels of a distribution center. Kostreski discloses a broadcast system in which every channel is sent to every subscriber at all times.

Kostreski does not teach, or fairly suggest, Applicants' invention. Claim 36 is patentable over the cited art. Claims 37-46 depend from claim 36 and are therefore also patentable.

Claims 10-46 are pending in this application. Applicants believe these claims meet all substantive requirements for patentability and respectfully request that this case be passed to issuance. No fee is believed due by filing this paper. However, any fee due may be withdrawn from Deposit Account No. 21-0456 as specified in the Application Transmittal.

The Examiner is invited to contact the undersigned to discuss any aspect of this case.

Respectfully submitted,

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